



National Transportation Safety Board Aviation Accident Final Report

Location:	SANTA ANA, CA	Accident Number:	LAX90LA055
Date & Time:	12/21/1989, 2234 PST	Registration:	N611AM
Aircraft:	BOEING 757-223	Aircraft Damage:	Substantial
Defining Event:		Injuries:	N/A
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

THE TAIL OF A BOEING 757 STRUCK THE RUNWAY DURING A VISUAL NIGHT LANDING AT THE ORANGE COUNTY AIRPORT. THE FLIGHT DATA RECORDER INDICATED A PITCH ATTITUDE OF 11.074 DEGREES FOR TWO SECONDS AT TOUCHDOWN. THE BOEING COMPANY STATED THE MAXIMUM PITCH AT TOUCHDOWN SHOULD NOT EXCEED 10.3 DEGREES. THIS WAS THE CAPTAIN'S FIRST NIGHT TIME FLIGHT INTO ORANGE COUNTY AIRPORT IN THIS TYPE OF AIRCRAFT. AIRCREWS CERTIFIED IN THE BOEING 767 AIRCRAFT ARE ALSO QUALIFIED IN THE BOEING 757 AIRCRAFT. AS OF FEBRUARY, 1990, THERE HAVE BEEN 27 KNOWN TAIL STRIKES IN THE 767 AND 51 TAIL STRIKES IN THE 757 AIRCRAFT DURING THE TAKEOFF AND LANDING PHASES OF FLIGHT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE COPILOT'S OVERROTATION OF THE AIRCRAFT DURING THE FLARE WHICH ALLOWED THE TAIL TO COLLIDE WITH THE RUNWAY. THE FAILURE OF THE CAPTAIN TO TAKE APPROPRIATE CORRECTIVE ACTION WAS A FACTOR IN THE ACCIDENT.

Factual Information

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N611AM
Model/Series:	757-223 757-223	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Transport	Serial Number:	24487
Landing Gear Type:	Retractable - Tricycle	Seats:	194
Date/Type of Last Inspection:	Continuous Airworthiness	Certified Max Gross Wt.:	240000 lbs
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:		Engine Manufacturer:	ROLLS-ROYCE
ELT:	Not installed	Engine Model/Series:	RB-211-53
Registered Owner:	WILMINGTON TRUST COMPANY	Rated Power:	40100 lbs
Operator:	AMERICAN AIRLINES	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	AALA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	SNA, 54 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2145 AST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	5 Miles
Lowest Ceiling:	Broken / 2800 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	14° C / 11° C
Precipitation and Obscuration:			
Departure Point:	DALLAS/FT WORTH, TX (DFW)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	2132 CST	Type of Airspace:	Class D; Class E

Airport Information

Airport:	ORANGE COUNTY (SNA)	Runway Surface Type:	Asphalt
Airport Elevation:	54 ft	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	ILS
Runway Length/Width:	5700 ft / 150 ft	VFR Approach/Landing:	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	N/A	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	N/A	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	R. GARY MUCHO	Report Date:	06/30/1992
Additional Participating Persons:	GENE HUGGINS; LONG BEACH, CA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).